

IN RESPONSE TO THE OFFICE ACTION

Claim Rejections under 35 U.S.C. § 102(b)

The Examiner has rejected claims 1, 2, 4 and 5 under 35 U.S.C. § 102(b) as being anticipated by Cochran et al., U.S. Patent No. 3,180,419 ("Cochran").

All independent claims of the present invention describe in some form a slot on an outer wall of a casing mandrel or liner hanger body, a groove on an inside surface of a cone assembly, and bearings or a wire situated in both the slot and groove adapted to resist axial movement of the cones relative to the casing mandrel or liner hanger body. Repeating, the wire is situated in both the slot and groove so as to resist axial movement of the cones relative to the casing mandrel or liner hanger body. To clarify what Applicant means by "resist axial movement," Applicant believes this to mean that the presence of the wire within the slot and groove resists up and down movement of the cones relative to the casing mandrel or liner hanger body. In other words, the cones stay in a relatively stationary position along the casing mandrel or liner hanger body.

Cochran et al. does not disclose such an apparatus. Directing the Examiner first to Figures 1 and 2 of Cochran, it is evident that cone 15 slides along the body 10 of the Cochran packer. As described in Cochran at column 4, lines 59-58, as pressure is exerted against piston 22, it moves upwardly, urging slips 17 outwardly over expander element 15 (the cones attached to body 10). This upward force acts through expander element 15 to compress seal element 14 to form a seal with casing wall C. This is clearly seen in Figures 1 and 2 of Cochran, as in Figure 1 the seal is not engaged with casing wall C, whereas in Figure 2 the cones/expander elements 15 have moved upwardly to compress and engage the seal 14. The Examiner may use element 25 of Figure 1 as a reference point to show that the cones/expander elements 15 have moved upwardly between Figures 1 and 2. When the seal is to be disengaged, then, the cones/expander elements 15 must again move axially relative to body 10 in a downward fashion, arriving back at the configuration in Figure 1. Thus, the cones/expander elements 15 must move axially relative to the body 10 of Cochran et al. or else the seal 14 would never engage.

As described above, the claims of the present invention describe a configuration in which axial movement of the cones relative to the body is resisted. This is exactly the opposite of what Cochran discloses. The cones of Cochran can and must move axially with respect to the body for the Cochran invention to operate properly, whereas with the present invention any axial movement of the cones is resisted.

The Examiner states in the Final Office Action that the claims do not require the elements to be fixed axially. While Applicant disagrees, Applicant has amended the claims to clarify for the Examiner that the mechanical coupling device of the present invention is adapted to resist any axial movement of the cones relative to the body. Certainly this is not what Cochran discloses.

Given the above, Applicant respectfully request that the Examiner withdraw the 35 U.S.C. § 102(b) rejection of claims 1, 2, 4 and 5, and indicate their allowance in the next paper from the office.

Claim Rejections under 35 U.S.C. § 103

The Examiner has rejected claim 3 under 35 U.S.C. § 102(b) as being anticipated by Cochran in view of Shallenberger et al., U.S. Patent No. 4,855,100. In view of the above arguments in support of the patentability of independent claim 1, Applicant respectfully submits that because the rejection of independent claim 1 has been overcome, so has the instant rejection of claim 3. Therefore, Applicant respectfully requests that the Examiner withdraw the 35 U.S.C. § 103 rejection of claim 3 and indicate its allowance in the next paper from the office.

Applicant requests for any extension of time that may be deemed necessary to further the prosecution of this application.


Applicant's representative authorizes the Commissioner to charge any additional fees which may be required, or credit any overpayment, to Deposit Account No. 01-2508, referencing Order No. 13137.0031.NPUS00.

In order to facilitate the resolution of any issues or questions presented by this paper, Applicant respectfully requests that the Examiner directly contact the undersigned by phone to further the discussion.

Serial No.: 10/041,974
Confirmation No.: 3679
Applicant: Marzin
Atty. Ref.: 13137.0031.NPUS00

In order to promote the prosecution of this application, the Examiner is authorized to contact the undersigned by electronic mail. Please address all e-mail to:
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Respectfully submitted,



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